

AMENDMENTS TO THE CLAIMS

1. (Previously presented) A resistive structure, comprising:
a diffusion-resistant aluminum conductive layer; and
a resistor layer over said conductive layer, wherein said resistor layer comprises nitrogen and phosphorus-doped amorphous silicon comprising between about 5 and 15 atomic percent nitrogen, and about 1×10^{20} to 5×10^{20} atoms/cm³ phosphorus to reduce diffusion out of the resistor layer into the aluminum conductive layer.
2. (Original) The resistive structure of Claim 1, further comprising a chromium layer between the aluminum layer and the resistor layer.
3. (Original) The resistive structure of Claim 1, wherein the conductive layer has a thickness of between about 2,000 and 2,500 Å.
4. (Original) The resistive structure of Claim 1, wherein the resistor layer has a thickness of between about 2,000 and 7,500 Å.
5. (Canceled)
6. (Currently amended) ~~The field emission display device of Claim 5,~~ A field emission display device, comprising:
a substrate;
a diffusion-resistant conductive bi-layer over the substrate;
an amorphous silicon resistor layer over the conductive layer, the resistor layer being doped with nitrogen and phosphorus in concentrations sufficient to prevent diffusion of silicon out of the resistor layer;
a dielectric layer over the resistor layer; and
a gate electrode over the dielectric layer, the gate electrode including a gate conductive layer;
wherein the resistor layer has a nitrogen concentration of between about 5 and 15 atomic percent.
7. (Currently Amended) ~~The field emission display device of Claim 5,~~ A field emission display device, comprising:
a substrate;
a diffusion-resistant conductive bi-layer over the substrate;

an amorphous silicon resistor layer over the conductive layer, the resistor layer being doped with nitrogen and phosphorus in concentrations sufficient to prevent diffusion of silicon out of the resistor layer;

a dielectric layer over the resistor layer; and

a gate electrode over the dielectric layer, the gate electrode including a gate conductive layer;

wherein the resistor layer comprises about 1×10^{20} to 5×10^{20} atoms/cm³ phosphorus.

8. (Canceled)

9. (Canceled)

10. (Previously presented) A field emission display device, comprising:

a substrate;

a diffusion-resistant conductive layer over the substrate;

an amorphous silicon resistor layer over the conductive layer, the resistor layer being doped with nitrogen and phosphorus;

a dielectric layer over the resistor layer; and

a gate electrode over the dielectric layer, the gate electrode including a gate conductive layer;

wherein the resistor layer has a nitrogen concentration of between about 5 and 15 atomic percent and about 1×10^{20} to 5×10^{20} atoms/cm³ phosphorus.

11. (Canceled)

12. (Canceled)

13 (Currently amended) The field emission display device [resistive structure] of Claim 5-6, wherein the conductive layer has a thickness of between about 2,000 and 2,500 Å.

14. (Currently amended) The field emission display device [resistive structure] of Claim 5-6, wherein the resistor layer has a thickness of between about 2,000 and 7,500 Å.